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## CLAIMS

(Amended during IPE)

- A flame arrester comprising a flow passage in which is disposed a two
  dimensional array of adjacent circular section rods, each being
  generally co-aligned and arranged transverse to the flow direction,
  such that fluids flowing in the passage must pass between the rods.
- 2. A flame arrester according to claim 1 in which the rods are arranged in rows.
- 3. A flame arrester according to any preceding claim in which the rods are of solid material.
- 4. A flame arrester according claim 1 or claim 2 in which the rods are tubes.
- 5. A flame arrester according to claim 4 in which the tubes are adapted to carry cooling fluid.
- 6. A flame arrester according to any preceding claim in which tubes carrying a cooling fluid are arranged upstream of the plurality.
- 7. A flame arrester according to claim 6 in which the upstream tubes are finned.
- 8. A flame arrester according to any preceding claim in which the rods are in rows transverse thereto and to the flow direction, each row being offset with respect to an adjacent row thereby to require a circuitous flow path.
- 9. A flame arrester according to claim 8 in which the offset is at an angle of between 30 and 60 degrees.



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- 10. A flame arrester according to any preceding claim including a scraping device between the rods thereby to remove deposits thereon.
- 11. A flame arrester according to claim 10 in which the scraping device is linked to a manually operated actuator.
- 12. A flame arrester according to claim 10 in which the scraping device is linked to a powered actuator thereby to allow automatic operation thereof.
- 13. A flame arrester according to claim 12 in which a timer device is provided, arranged to trigger the powered actuator after an interval.
- 14. A flame arrester according to any preceding claim in which the flow passage is cylindrical, the axis of the cylinder being aligned with the flow direction.
- 15. A flame arrester substantially as described herein with reference to and/or as illustrated in the accompanying drawings.
- 16. An assembly of a flame arrester according to any preceding claim with a reducer fitted on at least one side thereof, thereby to reduce the nominal size of the flow passage.
- 17. An assembly according to claim 16 in which a reducer is fitted on both sides of the arrester.
- 18. An assembly according to claim 16 or claim 17 in which the or each reducer is attached to the arrester by way of flanges on each part which are bolted together.